

PACKAGE ID - 001275MLTPL00 SALVO VERSION 3.0

KWIC TITLE - Seismic Imaging Processing and Migration

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 09/30/1998 **PUBLICATION DATE** - 09/30/1998

DESCRIPTION - Salvo is a 3D, finite difference, prestack, depth migration code for parallel computers. It is also capable of processing 2D and poststack data. The code requires as input a seismic dataset, a velocity model and a file of parameters that allows the user to select various options. The code uses this information to produce a seismic image. Some of the options available to the user include the application of various filters and imaging conditions. The code also incorporates phase encoding (patent applied for) to process multiple shots simultaneously.

PACKAGE CONTENTS - Media Directory; Software Abstract; User's Installation Guide; Seismic Imaging On Massively Parallel Computers; 3D Finite Difference Seismic Migration with Parallel Computers;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - Salvo migrates source and receiver wavefields in the f-x domain using a finite difference discretization of a one way acoustic wave equation. The source and receiver wavefields are then combined to produce the seismic image.

COMPUTER - MLT-PLTFM

OPERATING SYSTEMS - Machine dependent

PROGRAMMING LANGUAGES - Machine Dependent

SOFTWARE LIMITATIONS - The size of the seismic survey that can be processed is limited by the memory available to the code.

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SOURCE CODE AVAILABLE (Y/N) - Y

RELATED SOFTWARE - Data must be presented to Salvo in a specific (but industry standard) format. Some data conversion by the user may be required. Also, Salvo does not include any pre or post processing capabilities or visualization capabilities.

HARDWARE REQS - It has been run on the following platforms: Intel Paragon, Intel teraflops machine, Cray T3D, Cray T3E, SFI Origin 2000, IBM SP, DEC 8400, a new work of SGI workstations, a network of DEC workstations, and a network of Sun workstations. In most cases, the runs were made by out industrial partners; Sandia has focused it's work on the Intel Paragon as its main development platform.

ABSTRACT STATUS - Released 1/25/1999

SUBJECT CLASS CODE - R

KEYWORDS -
COMPUTER PROGRAM DOCUMENTATION
C CODES
DATA

EDB SUBJECT CATEGORIES -
990200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS